

IN THE CLAIMS

1. (currently amended) A composition for absorbing hydrogen, comprising:
a mixture of a polyphenyl ether and a hydrogenation catalyst,
wherein the polyphenyl ether is comprised of at least 3 basic structural
units and said composition is capable of absorbing hydrogen at a
pressure of less than about 1 atmosphere.
2. (original) The composition of claim 1, wherein the polyphenyl ether is
comprised of 4 to 7 basic structural units.
3. (original) The composition of claim 1, wherein the hydrogenation
catalyst is a precious metal or a metallic salt thereof.
4. (original) The composition of claim 3, wherein the hydrogenation
catalyst is Pt.
5. (original) The composition of claim 4, wherein the hydrogenation
catalyst is present at a concentration of from about 0.5 to 5 wt%.
6. (original) The composition of claim 1, wherein the hydrogenation
catalyst is supported on a porous solid.
7. (original) The composition of claim 6, wherein the porous solid is
activated carbon, aluminum oxide, or barium carbonate, or combinations
thereof.
8. (original) The composition of claim 1, wherein the concentration of
supported hydrogenation catalyst is from about 5-50 wt% of the
supported catalyst containing about 1-10 wt% metal.
9. (original) The composition of claim 1, further including a binder or filler.

10. (original) The composition of claim 9, w herein the binder or filler is an inert polymer, a thixotropic agent, a mineral, a carbon powder, or finely divided silica.

11. (original) The composition of claim 10, w herein the binder or filler is present at a concentration of from about 20-70 wt%.